

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1 - 16. (Cancelled)

17. (New) A method for delivering a gene into cells, which comprises contacting a gene delivery system comprising a nucleotide sequence of interest to be delivered into a cell to a biosample containing cells; wherein the gene delivery system comprises a relaxin-encoding nucleotide sequence to enhance a transduction efficiency of the nucleotide sequence of interest into the cell.

18. (New) The method according to claim 17, wherein the cell is a cell in a tissue composed of cells interconnected to each other by an extracellular matrix.

19. (New) The method according to claim 18, wherein the tissue is a tumor tissue.

20. (New) The method according to claim 17, wherein the gene delivery system is a plasmid, a recombinant adenovirus, adeno-associated virus (AAV), retrovirus, lentivirus, herpes simplex virus, vaccinia virus, a liposome or a neosome.

21. (New) The method according to claim 20, wherein the gene delivery system is a recombinant adenovirus.

22. (New) The method according to claim 21, wherein the recombinant adenovirus comprises a deleted E3 region and the relaxin-encoding nucleotide sequence is inserted into the deleted E3 region.

23. (New) A method for treating a cancer, which comprises administering to an animal a pharmaceutical anti-tumor composition comprising (a) a therapeutically effective amount of a recombinant adenovirus comprising an adenoviral ITR (inverted terminal repeat) nucleotide sequence and a relaxin-encoding nucleotide sequence; and (b) a pharmaceutically acceptable carrier; wherein a relaxin protein expressed enhances a penetration potency of the recombinant adenovirus into a tumor tissue and apoptosis of a tumor cell infected with the recombinant adenovirus.

24. (New) The method according to claim 23, wherein the recombinant adenovirus comprises a deleted E3 region and the relaxin-encoding nucleotide sequence is inserted into the deleted E3 region.

25. (New) The method according to claim 23, wherein the recombinant adenovirus comprises an inactivated E1B 19 gene, an inactivated E1B 55 gene or an inactivated E1B 19/E1B 55 gene.

26. (New) The method according to claim 23, wherein the recombinant adenovirus comprises an active E1A gene.